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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,801	10/27/2003	Atsushi Watanabe	392.1831	1084

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EXAMINER

GREENHUT, CHARLES N

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3652

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/692,801	Applicant(s) WATANABE ET AL.	
	Examiner Charles N. Greenhut	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

III. Claim Rejections - 35 USC § 112

The following is a quotation from the relevant paragraphs of 35 U.S.C. 112:

(2) The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

1.1. With respect to claims 1-2, 12-13, 24-25, and 35-36, the phrase, "container containing objects positioned therein from the first process" renders the claim indefinite because the phrase amounts to an indirect limitation of the first process, i.e., objects are positioned in the container during the first process. The first process is recited only functionally in the preamble, i.e., ...for conveying objects from a first process. Further limitations directed toward the steps of the first process render the scope of the claim indefinite because it cannot be determined whether Applicant is attempting to positively recite the first process and its steps in the claim or if the first process is related merely to the intended use of the method or apparatus for the respective claims. Furthermore, those claims directed toward an apparatus should not positively recite steps of a process because doing so would improperly span more than one statutory class of invention.

1.2. With respect to claims 1-2, and 12-13, Applicant is improperly attempting to recited process steps, e.g., "holding and taking out a container," "conveying an positioning the held container," "holding and taking out an object," within an apparatus claim. It

is unclear whether Applicant is attempting to recite an apparatus or a process.

Applicant may not direct a claim toward more than one statutory class of invention.

II. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim(s) 1-46 is/are rejected under 35 U.S.C. 102(b) as being anticipated by NELSON (US 6,723,174).

1.1. With respect to claim 1, NELSON discloses a first robot having an articulated arm (912) and hand (910) for holding and taking out a container and conveying the container to a predetermined position (900), a second robot for taking out an object contained in the container (970).

1.2. With respect to claim 2, NELSON discloses a first robot having an articulated arm (912) and hand (910) for holding and taking out a container and conveying the container to a predetermined position, a second robot with a sensor (980) for taking out an object contained in the container.

1.3. With respect to claim 3, NELSON additionally discloses the first robot changing position of the container.

1.4. With respect to claim 4, NELSON additionally discloses the first robot changing position of the container.

- 1.5. With respect to claim 5/1 and 5/2, NELSON additionally discloses the first robot having a sensor (714).
- 1.6. With respect to claim 6/1 and 6/2, NELSON additionally discloses a signal indicating the number of objects remaining in the container. (Col. 14 Li. 41-58)
- 1.7. With respect to claim 7/1 and 7/2, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.
- 1.8. With respect to claim 8/1 and 8/2, NELSON additionally discloses a second robot notifying the first.
- 1.9. With respect to claim 9/1 and 9/2, NELSON additionally discloses the robot notifying the process.
- 1.10. With respect to claim 10/1 and 10/2, NELSON additionally discloses the robot placing objects on a temporary placing table (990).
- 1.11. With respect to claim 11/1 and 11/2, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot (826).
- 1.12. With respect to claim 12, NELSON discloses a first robot having an articulated arm (912) and hand (910) for holding and taking out a container and conveying the container to a predetermined position (900), a second robot (970) for placing an object in the container, the first robot conveying the container to a second process.
- 1.13. With respect to claim 13, NELSON discloses a first robot having an articulated arm (912) and hand (910) for holding and taking out a container and conveying the

container to a predetermined position, a second robot with a sensor for placing an object in the container, the first robot conveying the container to a second process.

1.14. With respect to claim 14, NELSON additionally discloses the first robot changing position of the container.

1.15. With respect to claim 15, NELSON additionally discloses the first robot changing position of the container.

1.16. With respect to claim 16/12 and 16/13, NELSON additionally discloses the first robot having a sensor.

1.17. With respect to claim 17/12 and 17/13, NELSON additionally discloses a signal indicating the number of objects remaining in the container.

1.18. With respect to claim 18/12 and 18/13, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.

1.19. With respect to claim 19/12 and 19/13, NELSON additionally discloses a second robot notifying the first.

1.20. With respect to claim 20/12 and 20/13, NELSON additionally discloses the robot removing objects on a temporary placing table.

1.21. With respect to claim 21/12 and 21/13, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot.

1.22. With respect to claim 22, NELSON additionally discloses a visual sensor (Col. 14 Li 27).

- 1.23. With respect to claim 23, NELSON additionally discloses a three-dimensional position sensor.
- 1.24. With respect to claim 24, NELSON discloses holding and taking out a container containing objects by a first robot having an articulated arm (912) and hand (910) , conveying and positioning the container, and holding and taking out an object and conveying the object to a process using a second robot.
- 1.25. With respect to claim 25, NELSON discloses holding and taking out a container containing objects by a first robot having an articulated arm (912) and hand (910), conveying and positioning the container, holding and taking out an object and conveying the object to a process using a second robot and a sensor.
- 1.26. With respect to claim 26/24 and 26/25, NELSON additionally discloses the first robot changing position of the container.
- 1.27. With respect to claim 27/24 and 27/25, NELSON additionally discloses the first robot changing position of the container.
- 1.28. With respect to claim 28/24 and 28/25, NELSON additionally discloses holding the container based on the detected position.
- 1.29. With respect to claim 29/24 and 29/25, NELSON additionally discloses a signal indicating the number of objects remaining in the container.
- 1.30. With respect to claim 30/24 and 30/25, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.

- 1.31. With respect to claim 31/24 and 31/25, NELSON additionally discloses notifying the first robot that the second holds the object.
- 1.32. With respect to claim 32/24 and 32/25, NELSON additionally discloses the robot notifying the process.
- 1.33. With respect to claim 33/24 and 33/25, NELSON additionally discloses the robot placing objects on a temporary placing table.
- 1.34. With respect to claim 34/24 and 34/25, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot.
- 1.35. With respect to claim 35, NELSON discloses holding and taking out a container from the second process, conveying and positioning the held container using a first robot having an articulated arm (912) and hand (910), sequentially holding and taking out objects from the first process, placing the objects in the container using the second robot and conveying the container using the first robot.
- 1.36. With respect to claim 36, NELSON discloses holding and taking out a container from the second process, conveying and positioning the held container using a first robot having an articulated arm (912) and hand (910), sequentially holding and taking out objects from the first process, placing the objects in the container using the second robot, using a sensor, and conveying the container using the first robot.
- 1.37. With respect to claim 37, NELSON additionally discloses the first robot changing position of the container.

- 1.38. With respect to claim 38, NELSON additionally discloses the first robot changing position of the container.
- 1.39. With respect to claim 39/35 and 39/36, NELSON additionally discloses recognizing a position by a sensor.
- 1.40. With respect to claim 40/35 and 40/36, NELSON additionally discloses a signal indicating the number of objects remaining in the container.
- 1.41. With respect to claim 41/35 and 41/36, NELSON additionally discloses a signal output if the number of objects remaining in the container satisfies a predetermined condition.
- 1.42. With respect to claim 42/35 and 42/36, NELSON additionally discloses a notifying the first robot that the object has been placed in the container.
- 1.43. With respect to claim 43/35 and 43/36, NELSON additionally discloses the robot removing objects on a temporary placing table.
- 1.44. With respect to claim 44/35 and 44/36, NELSON additionally discloses the first robot changing position of the container to assist the second robot to eliminate an abnormality which is unable to be eliminated by the second robot.
- 1.45. With respect to claim 45/25 and 45/36, NELSON additionally discloses a visual sensor.
- 1.46. With respect to claim 46/25 and 46/36, NELSON additionally discloses a three-dimensional position sensor.

III. Response to Applicant's Arguments

Applicant's arguments entered 12/5/06 have been fully considered but are not persuasive.

1. Applicant argues that NELSON does not anticipate claims 1-2, 12-13, 24-25, 35-36, as amended, because NELSON does not disclose an articulated arm within the broadest reasonable interpretation of the term “articulated.” This argument is not persuasive. Arm (912) of NELSON is “articulated” within the broadest reasonable interpretation of that term. Examiner agrees with the definition of the term provided by Applicant in remarks; an articulated arm requires a joint. However, articulation does not necessarily require a pivotal joint like the one shown in Applicant’s preferred embodiment. The term “articulated” does not necessarily exclude a sliding joint such as the one disclosed in NELSON at (912). Such a sliding joint is sufficient to render arm (912) “articulated” within the broadest reasonable interpretation of that term. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.
2. Applicant argues that NELSON does not anticipate claim 6 because NELSON fails to disclose “a signal indicating the number of wafers taken out from the cassette.” This argument is not persuasive. As Applicant points out, the presence of any wafer will send a signal indicated the presence of at least one wafer. This signal is “a signal indicating the number of wafers taken out from the cassette (container)” within the broadest reasonable interpretation of that term. I.e., the signal indicates that all or less than all wafers have been removed.

IV. Conclusion

1. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3652

2. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Greenhut whose telephone number is (571) 272-1517. The examiner can normally be reached on 7:30am - 4:00pm EST.
4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.
5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CG


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